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AUTHOR Lopez, Linda C.; Hamlin, Penelope A.
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ABSTRACT

A survey of 208 female and 191 male students attending a public high school in southwestern New Mexico assessed the extent of student use of smokeless tobacco products. The sample included 179 Mexican-American and 26 Anglo-American females, as well as 152 Mexican-American and 26 Anglo-American males. The average age of both female and male subsamples was 15 years. None of the Anglo-American female respondents was a regular user of smokeless tobacco. One Mexican-American female identified herself as a user of chewing tobacco. Eight percent of male students used chewing tobacco, and five percent of males dipped snuff. Seven percent of Mexican-American males and 34 percent of Anglo-American males used smokeless tobacco. The frequency of smokeless tobacco use among Anglo-American males was significantly higher than among Mexican-American males. Both groups had begun using smokeless tobacco at an average age of 9-11. The results are compared to those of other southwestern studies of smokeless tobacco use. (Author/KS)

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SMOKELESS TOBACCO CONSUMPTION BY MEXICAN-AMERICAN HIGH SCHOOL STUDENTS

Linda C. Lopez

Western New Mexico University

Silver City, New Mexico 88061

Penelope A. Hamlin

Cobre Consolidated Schools

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Abstract

A survey of 208 female and 191 male students attending a public high school in southwestern New Mexico was conducted to determine the extent of the students' use of smokeless tobacco products. The sample included 179 Mexican-American and 26 Anglo-American females, as well as 152 Mexican-American and 26 Anglo-American males. The average age of both the female and male sub-samples was 15 years. One Mexican-American female respondent identified herself as a user of chewing tobacco. Eight percent (17) of the male students indicated that they used chewing tobacco. Five percent (11) of the male subsample reported that they dipped snuff. Of the Mexican-American males, 7% used smokeless tobacco, and of Anglo-American males, 34% were users. A Chi-Square analysis indicated that the frequency of smokeless tobacco use by Anglo-Americans was significantly ($p = .01$) higher than the frequency of smokeless tobacco use by Mexican-Americans.

Consumers of smokeless tobacco are four times as likely to develop mouth and throat cancer than non-users (Gottlieb, 1993). In addition, users of smokeless tobacco have a greater propensity to become cigarette smokers, increasing their risk factors for lung cancer, chronic obstructive pulmonary disease, and heart disease. (Ary, 1989; Dent, Sussman, Johnson, Hansen, & Flay, 1987; Shaw, 1991). Cigarette smoking is the primary cause of death and preventable illness (Shaw, 1991). Consequently, it is important to determine the prevalence of smokeless tobacco consumption among various segments of the adolescent population. This information could then be used to identify target groups for intervention.

Although smokeless tobacco use among Anglo-American high school students has been extensively documented, (Ary, 1989; Marty, McDermott, & Williams, 1986; Illinois Department of Public Health, 1988; Lichtenstein, Severson, Friedman, & Ary, 1984; Riley, Barenie, Mabe, & Myers, 1991), the use of smokeless tobacco among Hispanic high school students has received relatively little attention. McCarthy, Newcomb, Maddahian, and Skager (1986) surveyed 2,926 students in the 7th, 9th, and 11th grades in Ventura County, California. In that sample, 2.2% of the Hispanics

in the sample and 5.2% of the Anglo-American students indicated that they consumed smokeless tobacco on a daily basis. According to Orlandi and Boyd (1989), smokeless tobacco prevalence rates among Hispanics vary regionally.

In order to assess the extent of smokeless tobacco use among Mexican-American high school students, and to compare their smokeless tobacco prevalence rates with those of Anglo-American high school students, a survey was conducted of students attending a public high school in southwestern New Mexico. Eighty-two percent of the students enrolled in this high school are Mexican-American.

Method

In order to take a complete survey, all students in English classes on a day in the Fall 1991 semester were asked to complete questionnaires for the study. (All students are required to be enrolled in English.) Those who agreed to participate were asked to complete a survey of 18 questions, which took less than five minutes to answer. Respondents were asked their age, ethnic affiliation, and whether or not they used snuff or chewing tobacco. Those who identified themselves as smokeless tobacco users were asked to answer questions about the amounts of snuff and/or chewing tobacco they consumed each week; their perceptions

of the health consequences of using smokeless tobacco; and their age of first use. The questionnaire was pre-tested on a sample of students attending a state university in southwestern New Mexico.

Questionnaires were completed by 208 female and 191 male students. The ages of the female students ranged from 14 to 20; their average age was 15. The ages of the male students ranged from 14 to 20 years; their average age was 15 years. Of the females, 179 were Mexican-Americans and 26 were Anglo-Americans. One African-American female and one Asian-American female were also included in the survey. One female student declined to identify her ethnic affiliation. The male subsample included 152 Mexican-Americans, 26 Anglo-Americans, 3 African-Americans, 2 Asian-Americans, 5 Native-Americans, and 3 who identified themselves with other ethnic groups.

Results

One Mexican-American female respondent indicated that she used chewing tobacco. Three Mexican-American females reported that they had tried chewing tobacco, and six had tried snuff. One Anglo-American female revealed that she had tried snuff, and another Anglo-American female had tried chewing tobacco.

Eight percent (17) of the male subsample identified themselves as users of chewing tobacco. Five percent (11) of the males indicated that they used snuff. Seventeen percent (33) of the male subsample revealed that they experimented with chewing tobacco. Twelve percent (23) of the males indicated that they had tried, but did not currently use, snuff.

Seven Anglo-American males revealed that they used both chewing tobacco and snuff; two indicated that they dipped snuff. Five Mexican-American males identified themselves as users of both snuff and chewing tobacco; one indicated that he used snuff, and five revealed that they used chewing tobacco only. A Chi-square analysis indicated that the frequency of smokeless tobacco use among Anglo-Americans was significantly higher ($\chi^2 = 9.36$, $p = .01$) than the frequency of smokeless tobacco use among Mexican-Americans.

Mexican-Americans and Anglo-Americans who chewed tobacco began this practice at an average age of 10. Mexican-Americans who used snuff first used this product at an average age of 9. Anglo-American snuff users began their use at an average age of 11.

The modal quantity of chewing tobacco consumption for Mexican-American users was less that six pouches weekly. The bimodal quantities of snuff consumption for Mexican-

American users were two/three cans per week.

The modal consumption of chewing tobacco for Anglo-American users was one can weekly. The bimodal amounts of snuff consumption for Anglo-Americans were two cans per week and four or more cans per week.

Of the Mexican-American chewing tobacco users, 10% (1) indicated a lack of knowledge as to whether or not using snuff caused cancer. Of the Mexican-American snuff users, 16% (1) did not perceive snuff as a cancer risk. Of the Anglo-American snuff users, 33% (2) did not know if snuff use posed a cancer risk. Of the Anglo-American tobacco chewers, 20% (2) reported that they did not know if chewing tobacco use was associated with a cancer risk.

Discussion

Consistent with previous investigations (Boyd, 1987; McCarthy, Newcomb, Maddahian, & Skager, 1986), the use of smokeless tobacco among females who participated in the survey was negligible. Five percent of the male respondents identified themselves as snuff users, and eight percent of the male subsample indicated that they chewed tobacco. Data from regional surveys have indicated that 8 to 36% of male high school and college students are regular users of smokeless tobacco (Lichtenstein, Severson, Friedman, & Ary,

1984). The male smokeless tobacco prevalence rate found in this investigation was also lower than those found by other investigators for male adolescents living in the Southwest. Glover, Edwards, Laflin, and Abritton (1986), for example, surveyed 190 male ninth graders and 192 male eleventh graders living in Oklahoma about their use of smokeless tobacco. They found the 32.8% of the male ninth graders and 39.3% of the male eleventh graders indicated that they used smokeless tobacco products. In a similar survey, conducted by the New Mexico State Education Department (1991), of 8,000 students from 30 New Mexico school districts in 1986, 17.3% of the ninth graders and 14.1% of the twelfth graders identified themselves as users of chewing tobacco.

The New Mexico State Department of Education (1991) also surveyed 5,123 ninth graders and 4,024 twelfth graders enrolled in 87 school districts in New Mexico during 1990. In response to this investigation, 13.2% of the ninth graders and 18.9% of the twelfth grades indicated that they chewed tobacco. Longitudinal studies are needed to determine if smokeless tobacco consumption is increasing, decreasing, or remaining stable.

Likewise, smokeless tobacco prevalence rates for male adults in this region are higher than those found in this investigation for male high school students. Lopez (1990)

found 27% of 84 male students attending a university in southwest New Mexico identified themselves as consumers of smokeless tobacco. Similarly, a 1990 telephone survey of Grant County, New Mexico, residents, using systematic random sampling, revealed that 33% of 96 males and 7% of 82 females identified themselves as smokeless tobacco users (Lopez, 1992). Additionally, a 1991 telephone survey of Grant County, New Mexico, residents, using systematic random sampling, found that 26% of the 30 Mexican-American males interviewed, and 25% of the 51 Anglo-American male respondents, indicated that they used smokeless tobacco (Lopez and Rico-Sanchez, in press). Forty-six Mexican-American females and 81 Anglo-American females who were interviewed in this survey reported that they did not use smokeless tobacco products.

Among the male students in this survey, 7% of 152 Mexican-Americans and 34% of 26 Anglo-Americans identified themselves as smokeless tobacco users. The results for the Anglo-American respondents can not be generalized, due to the small size of that subsample. Nevertheless, survey findings suggest that, like their Anglo-American counterparts, some Mexican-American high school students are taking up the practice of smokeless tobacco consumption. This phenomena should be monitored and efforts should be

made to alert Mexican-American students to the health risks that accompany smokeless tobacco use.

Although the results of a recent investigation (Lopez & Wilson, 1992) suggest that discussions about smokeless tobacco and its effects are included in secondary health textbooks, additional studies should be conducted to evaluate the effectiveness of various educational approaches to bring about desired changes in student behavior. Finally, even though the laws of many states prohibit the sale of smokeless tobacco products to anyone under the age of 18, educators, counselors, health professionals, and parents should be advocates for strict enforcement of existing laws restricting sales of smokeless tobacco to young people.

References

Ary, D.V. (1989). Use of smokeless tobacco among male adolescents: concurrent and prospective relationships. National Cancer Institute Monographs, 8, 49-55.

Boyd, G.M. (1987). Use of smokeless tobacco among children and adolescents in the United States. Preventive Medicine, 16, 402-421.

Dent, C.W., Sussman, S., Johnson, C.A., Hansen, W.B., and Flay, B.R. (1987). Adolescent smokeless tobacco incidence: relationship with drugs and psychosocial variables. Preventive Medicine, 16, 422-431.

Glover, E.D., Edwards, S.W., Laflin, M., and Albritton, L. (1988). Prevalence, intentionality, and age of initiation of smokeless tobacco use in Oklahoma. Wellness Perspective, 4, 3-6.

Gottlieb, A. (1993) Patterns of smokeless tobacco use by young adolescents. Pediatrics, 91, 75.

Illinois Department of Public Health. (1988). Use of smokeless tobacco in Illinois. Illinois Interscholastic, 60, 214.

Lichtenstein, E., Severson, H.H., Friedman, L.S., and Ary, D.V. (1984). Chewing tobacco use by adolescents; prevalence and relation to cigarette smoking. Addictive Behaviors, 9, 351-355.

Lopez, L.C. (1990). Prevalence of smokeless tobacco consumption at a southwestern university. Psychological Reports, 67, 225-226.

Lopez, L.C. (1992). Smokeless tobacco consumption in Grant County, New Mexico. International Journal of the Addictions, 27, 1131-1135.

Lopez, L.C., and Rico-Sanchez, K. (In Press). Smokeless tobacco consumption by Mexican-Americans and Anglo-Americans in southwestern New Mexico. International Journal of the Addictions.

Lopez, L.C., and Wilson, I.F. (1992, November). Elementary and secondary health book coverage of smokeless tobacco.

Paper presented at the meeting of the Arizona Educational Research Organization, Phoenix.

Marty, P.J., McDermott, R.T., and Williams, T. (1986). Patterns of smokeless tobacco use in a population of high school students. American Journal of Public Health, 76, 190-192.

The New Mexico State Department of Education. (1991). New Mexico Student Alchohol and Drug Survey. New Mexico State Department of Education: Santa Fe.

McCarthy, W.J., Newcomb, M.D., Maddahian, E., & Skager, R. (1986). Smokeless tobacco use among adolescents; demographic differences, other substance use, and psychological correlates. Journal of Drug Education, 16, 383-402.

Orlandi, M.A., and Boyd, G. (1989). Smokeless tobacco use among adolescents: a theoretical overview. National Cancer Institute Monographs, 8, 5-12.

Riley, W.T., Barenie, J.T., Mabe, A., and Myers. D.R. (1991). The role of race and ethnic status on the

psychosocial correlates of smokeless tobacco use in adolescent males. Journal of Adolescent Health, 12, 15-21.

Shaw, M. (ed) (1991). Illustrated Manaul of Nursing Practice. Springhouse Corporation: Springhouse Pennsylvania.

Author Notes

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